REMARKS

The foregoing amendment does not involve new matter. The amendment of claim 28 clarifies that in the claimed method the step of modifying the spring rate occurs after the step of measuring the spring rate. This is supported in the examples on pages 28-29 and 30-31.

In the May 23, 2007 Office Action, claims 28, 31, 33 and 36 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,696,320 (Bull) in view of Kren. This rejection is respectfully traversed.

Claim 28 calls for a method of preparing and using a coil spring in a pressure relief valve and requires a) measuring the spring rate of the coil spring; b) modifying the spring after measuring its spring rate so as to modify its spring rate to be within ±2% of a target spring rate, and c) building a pressure relief valve with the modified coil spring. The Office Action takes the position that Bull discloses a relief valve device, and that it would be desirable to have a valve with a different spring rate for varying applications. The Office Action then goes on to point out that Kren teaches a method of machining a "spring rate to be within 0.33% of a target spring rate" by cutting a spring from bar or stock material. The Advisory Action mailed September 12, 2207 asserts that in Kren, at some point in the manufacturing process, a "spring" exists, and that "spring" is modified as the manufacturing process is completed. Thus it is asserted that in Kren a coil spring has its spring rate modified.

Claim 28 has been amended to make it explicit that in the invention of claim 28, the modification step occurs after the spring rate is measured. In Kren, any measuring that is done only occurs after the spring is completed. No further modifications are made after the spring is produced. Thus, the references do not make the invention of claim 28 obvious. There is no teaching or suggestion in Bull to either measure the spring rate of any spring, or to remove a portion of the spring. While Kren does suggest that a tighter tolerance in the variation of spring rates can be achieved by machining springs from stock material rather than by winding the springs from wire, there is no suggestion of measuring the spring rate of a coil spring and then modifying that spring and using it to build a pressure relief valve, which is called for by claim 28.

If the references were combined, someone would manufacture a spring by machining, and use that spring in the valve of Bull. One would not measure the spring rate of a given coil spring, modify that spring to change its spring rate, and then use the modified spring in the valve of Bull.

Further, the combination of references is only made by hindsight efforts to recreate the invention. There is nothing in Bull or Kren that suggests that it is desirable to have a valve with a different spring rate for different applications as alleged in the Office Action. Instead, Bull teaches, in Col. 4, lines 52-66, how to adjust the spring force to achieve a desired spring force. There is no suggestion that the spring needs to have any specific spring rate, or that springs with different spring rates would be desirable for different applications.

Finally, there is no suggestion in either Bull or Kren of taking the coil spring, measuring its spring rate, modifying its spring rate, and then using the spring to make a pressure relief valve,

Claim 31 requires the spring rate to be modified by having a portion of the surface of the spring removed. Claim 33 requires the material be removed from the outside diameter of the coil spring. There is no teaching or suggestion in Bull or Kren of modifying a coil spring rate by having a portion of the surface of the coil spring removed, let alone removed from its outside diameter.

Thus, all the claims under consideration in the application are allowable over the cited prior art. Further, since claim 28 is a generic claim, the allowability of claim 28 requires the species restriction to be withdrawn. Claims 29, 30, 32 and 34, dependent on claim 28, should be brought back into consideration and allowed.

As a final matter, it is noted that Bull was left off of the 892 form attached to the February 22, 2007 Office Action, and has still not been listed on an 892 form. The Examiner is requested to list the Bull reference on an 892 form so as to make the reference of record. Further, a Second Supplemental Information Disclosure Statement was filed on June 26, 2007. The initialed 1449 form attached thereto has yet to be returned by the Examiner.

It is believed that the case is in condition for allowance. An early notice to that effect is respectfully requested.

Respectfully submitted,

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Date: October 23, 2007
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